

Atty Docket No.: JCLA7301-R

Serial No.: 10/058,681

In The Claims

1. (previously presented) A digital phase-locked loop compiler, comprising:
a phase digital converter for comparing a feedback signal with a feedback frequency and a reference signal at a reference frequency, sampling the compared result at a predetermined frequency, and outputting a digital phase adjusting signal;
a digital-to-analog voltage converter for converting the digital phase adjusting signal into an analog phase adjusting signal;
a voltage-control oscillator for outputting an output signal at the output frequency under the adjustment of the analog phase adjusting signal;
a post-divider for feeding back and dividing down the output signal to the phase digital converter based upon a predetermined post adjusting value; and
a high-frequency oscillator for issuing a sampling signal at the predetermined frequency to sample the feedback signal with the feedback frequency and the reference signal at the reference frequency.

2. (currently amended) The compiler in claim 1, further comprises comprising a pre-divider for dividing down an input signal into the reference signal at the reference frequency based upon a pre-adjusting value.

Claim 3. (canceled)

4. (currently amended) The compiler in claim 1, further comprises comprising an out-divider for dividing down the output signal at the output frequency to produce a desired output signal at a desired output frequency according to an output adjusting value.

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5. (previously presented) The compiler in claim 1, wherein the phase digital converter further comprises a phase-frequency detector for outputting a value-modifying signal according to the feedback signal with the feedback frequency and the reference signal at the reference frequency.

6. (previously presented) The compiler in claim 5, wherein the phase digital converter further comprises an up-down converter for outputting an adjusting signal according to the value-modifying signal.

7. (previously presented) The compiler in claim 6, wherein the phase digital converter further comprises an arithmetic logic unit for outputting a phase adjusting value according to the adjusting signal.

8. (currently amended) The compiler of claim 1, further ~~comprises~~ comprising a built-in self-tester.

9. (original) The compiler in claim 1, wherein the predetermined post adjusting value for the post divider is adjustable.

10. (previously presented) The compiler of claim 1, wherein the sampling frequency is 360 times the comparable input frequency.

11. (original) The compiler of claim 1, wherein the feedback frequency has a preset value.

12. (previously presented) The compiler of claim 2, wherein the pre adjusting value is automatically set by the digital phase-locked loop compiler according to the input frequency.

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13. (original) The compiler of claim 1, wherein the post adjusting value is set according to the required output frequency.

14. (previously presented) The compiler of claim 4, wherein the output adjusting value is set according to the required output frequency.

15. (previously presented) The compiler of claim 7, wherein the phase adjusting value is a 9-bit digital signal.

16. (new) A digital phase-locked loop compiler, comprising:

a phase digital converter for comparing a feedback signal with a feedback frequency and a reference signal at a reference frequency, sampling the compared result at a predetermined frequency, and outputting a digital phase adjusting signal;

a digital-to-analog voltage converter for converting the digital phase adjusting signal into an analog phase adjusting signal;

a voltage-control oscillator for outputting an output signal at the output frequency under the adjustment of the analog phase adjusting signal; and

a post-divider for feeding back and dividing down the output signal to the phase digital converter based upon a predetermined post adjusting value;

wherein the phase digital converter further comprises:

a phase-frequency detector for outputting a value-modifying signal according to the feedback signal with the feedback frequency and the reference signal at the reference frequency;

an up-down converter for outputting an adjusting signal according to the value-modifying signal; and

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an arithmetic logic unit for outputting a phase adjusting value according to the adjusting signal.

17. (new) The compiler in claim 16, further comprising a pre-divider for dividing down an input signal into the reference signal at the reference frequency based upon a pre-adjusting value.

18. (new) The compiler in claim 16, further comprising a high-frequency oscillator for issuing a sampling signal at the predetermined frequency to sample the feedback signal with the feedback frequency and the reference signal at the reference frequency.

19. (new) The compiler in claim 16, further comprising an out-divider for dividing down the output signal at the output frequency to produce a desired output signal at a desired output frequency according to an output adjusting value.

20. (new) The compiler of claim 16, further comprising a built-in self-tester.

21. (new) The compiler in claim 16, wherein the predetermined post adjusting value for the post divider is adjustable.

22. (new) The compiler of claim 16, wherein the sampling frequency is 360 times the comparable input frequency.

23. (new) The compiler of claim 16, wherein the feedback frequency has a preset value.

24. (new) The compiler of claim 17, wherein the pre-adjusting value is automatically set by the digital phase-locked loop compiler according to the input frequency.

25. (new) The compiler of claim 16, wherein the post adjusting value is set according to the required output frequency.

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26. (new) The compiler of claim 19, wherein the output adjusting value is set according to the required output frequency.

27. (new) The compiler of claim 16, wherein the phase adjusting value is a 9-bit digital signal.